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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,568	10/24/2005	Christoph Brabec	15626-049US1 SA-17 US	2161
26161	7590	09/27/2006	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			INGHAM, JOHN C	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/536,568	<b>Applicant(s)</b> BRABEC ET AL.	
	<b>Examiner</b> John C. Ingham	<b>Art Unit</b> 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/26/05, 9/21/05, 10/17/05</u> .                              | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims **9-14** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim **9**, it is unclear whether “a photovoltaically active layer” as recited in line 2 is a different layer from “a photovoltaically active layer” as recited in line 4. The claim has been interpreted as if the second recitation was changed to “*the* photovoltaically active layer”.

### ***Claim Objections***

3. Claim 3 objected to because of the following informalities: “the positive electrode” lacks proper antecedent basis. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims **1-3, 6, 9 and 10** are rejected under 35 U.S.C. 102(b) as being anticipated by Yu (US 6,483,099).

6. Regarding claims **1 and 2**, Yu discloses in Fig 2 a photovoltaic component comprising a bottom electrode (11), a photovoltaically active layer (12), and thereon a top electrode (13) made of a semitransparent (col 12 ln 20) predominantly organic material.

7. Regarding claim **3**, Yu discloses in Fig 1 and Fig 2 that the photovoltaic component of claim 1 may be flipped, so that bottom becomes top, and the top electrode (11) is a positive electrode.

8. Regarding claim **6**, Yu discloses in example 1 (col 15) a method for producing a photovoltaic component, wherein applied to a substrate (Fig 2 item 14) is a bottom conductive functional layer (item 11, col 15 ln 29), thereon a semiconductive, photovoltaically active functional layer (item 12, col 15 ln 17), and a top organic conducting functional layer (item 13, col 15 ln 26) is applied to said semiconductive , photoactive functional layer.

9. With regards to claim **8**, Yu discloses that the top electrode of the component of claim 1 can comprise PEDOT (col 12 ln 21)

10. Regarding claims **9 and 10** as best understood, Yu discloses in Fig 2 a photovoltaic component comprising a first electrode (11), a photovoltaically active layer (12), and a second electrode (13) comprising a semitransparent (col 12 ln 20) predominantly organic material, and the photovoltaically active layer between the first and second electrodes.

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11. Regarding claims **11 and 12**, Yu discloses in Fig 1 and Fig 2 that the photovoltaic component of claim 1 may be flipped, so that bottom becomes top, and the top electrode (11) is a positive electrode.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims **4-5 and 13-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu and Thalheimer (US 4,758,526). Yu discloses the component of claim 1 and claim 9, but fails to specify leakage connectors disposed on the first electrode, wherein the leakage connectors comprise silver conductive paste.

Thalheimer teaches the coating of electrodes with silver conductive paste, which is useful because it can be carried out by screen printing techniques (col 3 ln 50-52). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Thalheimer on the component of Yu in order to continue the use of screen printing, as was used on the electrode itself.

14. Claim **7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu and Friend (US 6,498,049). Yu discloses the method of claim 6, but fails to specify that the

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top organic conducting layer is applied by means of printing techniques. Instead, Yu discloses that the electrodes are either spin coated or evaporated.

Friend teaches a method of ink-jet printing a transparent electrode layer made from organic material, the printing method replacing the evaporating method in order to avoid the step of etching, which can damage the organic structure (col 2 ln 36-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Friend in the method of Yu in order to avoid etching the structure.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Ingham whose telephone number is (571) 272-8793. The examiner can normally be reached on M-F, 8am-5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John C Ingham  
Examiner  
Art Unit 2814

jci



**HOWARD WEISS**  
**PRIMARY EXAMINER**